

What is claimed is:

1. A reception method for a wireless transmission system based on an adaptive modulation scheme which adaptively  
5 selects a plurality of modulation schemes according to variations in a propagation path characteristic, comprising:

a priority order adding step of adding priority order to modulation schemes to be candidates for estimation  
10 processing of said modulation scheme; and

an estimating step of executing estimation processing on modulation schemes one by one in descending order of said priority and confirming a modulation scheme of said received signal when predetermined likelihood  
15 is obtained.

2. The reception method according to claim 1, wherein in said priority order adding step, the priority order is decided based on the channel of the received signal.

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3. The reception method according to claim 1, wherein in said priority order adding step, the priority order is decided based on the previously estimated modulation scheme, reception quality or reception level of the  
25 received signal.

4. The reception method according to claim 1, further

comprising a threshold deciding step of deciding a threshold to be compared with said predetermined likelihood based on the reception quality of the received signal, wherein in said estimating step, said  
5 predetermined likelihood is compared with said decided threshold to estimate a modulation scheme.

5. A reception apparatus for a wireless transmission system based on an adaptive modulation scheme which  
10 adaptively selects a plurality of modulation schemes according to variations in a propagation path characteristic, comprising:  
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a modulation scheme estimation section that demodulates a received signal according to a predetermined demodulation scheme, calculates likelihood of the demodulated received signal and estimates whether said demodulation scheme is a demodulation scheme corresponding to the modulation scheme of said received signal or not based on the  
20 calculated likelihood; and

a modulation scheme estimation control section that adds priority order to modulation schemes to be candidates for said estimation, causes said modulation scheme estimation section to execute estimation processing on modulation schemes one by one in descending order of said  
25 priority and confirms a modulation scheme of said received signal when predetermined likelihood is obtained.

6. A wireless transmission system comprising:

a transmission apparatus that adaptively selects a modulation scheme corresponding to a transmission signal from a plurality of modulation schemes according to variations in a propagation path characteristic; and

a reception apparatus that comprises:

a modulation scheme estimation section that demodulates a received signal according to a predetermined demodulation scheme, calculates likelihood of the demodulated received signal and estimates whether said demodulation scheme is a demodulation scheme corresponding to the modulation scheme of said received signal or not based on the calculated likelihood; and

a modulation scheme estimation control section that adds priority order to modulation schemes to be candidates for said estimation, causes said modulation scheme estimation section to execute estimation processing on modulation schemes one by one in descending order of said priority order and confirms a modulation scheme of said received signal when predetermined likelihood is obtained.